Pneumatic Bag Clutches, Their Characteristics and Application SOV/138-58-4-5/13

kg metres (on the abscissa). The different curves are for various speeds in r.p.m. The figure is constructed for a contracting type clutch, hence the higher the speed the greater the required air pressure in the bag for any given torque. Formulae (4) and (5) are concerned with torsional stiffness and the elastic characteristics of the bag material. The dynamic torsional stiffness of the material is related to the specific (internal) friction of the rubber and cord. In order to reduce generation of heat through torsional oscillations of high amplitude, the bag material should have high specific friction, i.e. high internal damping. This is in contrast to the requirements for a motor tyre where the dynamic load on the tyre does not depend upon the specific friction, but the dead load, and consequently material with low internal specific friction is preferred. Formula (6) indicated that the specific friction determines the ratio between the energy absorbed in the coupling and the potential energy arising from torsional oscillations. Torsional characteristics of tyres under dynamic conditions were studied, jointly, at the Krylov Institute and the Leningrad tyre factory, and

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at the Scientific Research Institute of the Tyre Industry together with the Kuybyshev Institute. Formulae (7) and (8) are due to I. A. Lur'ye (Ref 1) and give an approximate means of estimating e, the term for torsional stiffness of the bag under dynamic conditions. Formula (7) is for bags with Kapron reinforcing cords and rubber of the NK type. The specific friction of the latter is taken as 0.1. The alternative formula for e is for bags with cotton reinforcement and rubber of CKBM type, where the specific friction is taken as 0.15. Apart from torsional flexibility, radial stiffness is considered also. As can be seen from formula (8), radial stiffness C_p is directly proportional to the mean radius of the bag r_o. Radial stiffness, therefore, is less dependent on the dimensions of the bag than torsional stiffness. As can be seen from formula (7)

SOV/138 -58-4-5/13

Pneumatic Bag Clutches, Their Characteristics and Application

the latter is inversely proportional to the cube of the bag diameter.

There are 8 figures, 1 table and 6 references, all of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Tyre Industry Scientific Research Institute)

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1. Clutches--Design 2. Clutches--Applications
3. Clutches--Properties 4. Rubber--Applications

S/138/60/000/011/003/010
A051/A029

AUTHORS: Klas, M.Yu., Kotel'nikov, B.N.

TITLE: Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

PERIODICAL: Kauchuk i rezina, 1960, No. 11, pp. 11-18

TEXT: The Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry) in cooperation with the Vsesoyuznyy nauchno-issledovatel'skiy institut pod"yemno-transportnogo mashinostroyeniya (All-Union Scientific Research Institute of the Handling Equipment Industry) have designed a high-elastic coupling sleeve 260 x 70 mm in size transmitting a working torsion moment of up to 30 kgm and allowing for a short-time overload of up to 75-80 kgm. The coupling sleeve is designed to transmit medium powers and allows for a radial shift of the shaft of up to 3 mm, an axial shift of up to 4 mm and an angular shift of up to 1.5°. The authors stress the advantages of a highly-elastic coupling sleeve for the case of crane mechanisms, in joining the electric motor to the reductor so that the inaccuracies occurring in the

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Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

setting up of the mechanism parts be compensated for and the percussions be softened, which arise when the motor is put into operation. The coupling sleeve has the following design: It consists of a resilient rubber element (1) (Fig. 1) similar in shape to an automobile hood, two hard semi-sleeves (2), two clamp bushes (3) and fastening pins. The element (1) is placed between the two semi-sleeves and the fastening pins, entering grooved apertures of the semi-sleeves, are clamped on the sides by the bushes. The torsion moment is transmitted due to friction force occurring in the compression zone of the resilient element's side. The main element of the sleeve is a resilient rubber casing (Fig. 2) representing a flexible and elastic connection of two rotating parts transmitting the torsion moment. In order to assemble the resilient rubber element without any axial shift of the parts being joined in the mechanism, the latter is cut along its cross section in some part of the circumference. The metallic parts of the sleeve do not require in processing any great

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Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

accuracy and can be assembled even in repair shops. The semi-sleeves are made of СЧ-15-32 (SCh) pig iron according to ГОСТ 1412-54 (GOST 1412-54) or from structural steel. The selection of the material is determined by the magnitude of the torsion moment transmitted by the sleeve. The experimental samples were prepared according to a technique which takes into account the special features of the resilient rubber element of the sleeve. The assembly was conducted on a hard pole (Fig 3). The following rubber grades were investigated for determining the characteristic features: ВЭ-1 (VE-1), ВЭ-2 (VE-2) and ВЭ-3 (VE-3) made of three types of rubber based on natural and synthetic rubber. The following features were recorded: the maximum torsion moment, torsion angle of the sleeve, angle of curvature of the shaft axes, the magnitude of the radial shift of the joining shaft axes. The experimental setup consisted of a reductor stand (Fig. 4) having two РМ-400 (RM-400) reductors and an inertia stand. This stand was used for static tests of the experimental samples of the resilient rubber elements of the sleeve. The magnitude of the

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A051/A029

Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

torsion moment was determined from the showings of the dynamometer and calculated according to the formula: $M = P_d \cdot i_r \cdot \eta_r \cdot \frac{D}{2}$, where P_d is the force on the dynamometer in kg, i_r is the transmission ratio of the reductor, η_r is the efficiency factor of the reductor = 0.94, D is the diameter of the disk on which the cable was wound in m. The maximum torsion moment was determined from the loss of the geometrical shape of the resilient element (stability) under a given load. The angle of torsion of the element was found to be the angle of rotation of one of the semi-sleeves relative to the second one at a given value of the torsion moment. The angle of the relative rotation was measured according to the circumference arc of the clamping bush. The arcs were measured with a steel ruler and the values of these deflections were converted to degrees according to the formula: $\varphi = \frac{L \cdot 360^\circ}{\pi \cdot D}$, where φ is the torsion angle of the element in degrees, L is the magnitude of deflection along the circumference arc of the clamping bush, in mm, D is the diameter of the

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Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

clamping bush in mm. The sleeve was further tested on the ИС-2 (IS-2) inertia stand (Fig. 5) to determine the reliability of the element under conditions of repeated starting and reversions of the sleeve. The relationship of the torsion angle of the sleeve to the torsion moment for these elements was further investigated. It was found (Fig. 6) that this relationship is linear. For comparative purpose a curve of the МУВП (MUVP) GOST 2229-55 pin sleeve coupling was introduced into the graph. It was noted that the latter type sleeve has a higher hardness value than the highly-elastic sleeve. Further tests were made of the conditions of loading on the sleeve, whereby the resilient rubber element of the sleeve was found to lose its stability. It was established experimentally that in transmitting a rated three-fold moment by the sleeve the indicated resilient element does not lose its stability. Comparative data on the loss of stability in the case of different rubber grades are listed:

grading	torsion moment, kgm
VE-1	180

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grading	torsion moment, kgm
VE-2	225
VE-3	165

Experimental data also showed that the resilient element of the sleeve can function in short-time overloads with a torsion moment of up to 80 kgm. The linear deformations of the element were tested at various loads and the values and nature of their distribution along the shape of the element were determined (Fig. 8,9). The experimental data showed that at a moment equal to 25 kgm the expansion deformation (depending on the section of the element being tested and the rubber type was found to fluctuate between 1.5-6%. When the sleeve is loaded by a torsion moment equal to a threefold working moment, i.e., 75 kgm, the deformation depending on the rubber type increases to 16.5% in different sections. Fig. 10 (a,b) gives data on the deformation distribution in various meridional sections. Experimental data also revealed the zone and nature of destruction, when testing the

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Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

stability of the elements in static torsion. The approximate value of the shift tensions in the destruction of the element was also estimated. The reductor stand was used for the former and it was noted that the samples became torn in the zone of the lateral part adjacent to the spot fastened by metal bushes (Fig. 11). The most stable element was found to be the VE-2 type. The value of the shift tensions at the moment of destruction of the element was determined by the formula: $\tau_{destr} = \frac{M_{destr.}}{2\pi r^2 \delta}$, where τ_{destr} is the shift tension, kg/cm^2, M_{destr} is the torsion moment, kg·cm, r is the distance of the ring section from the rotational axis in cm; δ is the thickness of the wall in cm. (Abstractor's note: Subscript $_{destr.}$ (destruction) is a translation from the Russian раз (razrusheniya)). The experimental samples were destroyed at the following torsion moments (kgcm): VE-1 22,500, VE-2 36,000, VE-3 2,250. At these values the tension moments of shift will be: $\tau_{VE-1} = 24.7$ kg/cm^2, etc. The experimental data

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showed that at a torsion moment of M = 30 kgm this sleeve works quite reliably, whereby $\tau = 4 \text{ kg/cm}^2$. Thus, for VE-2 $\tau = 4 \text{ kg/cm}^2$ is the permissible tension. The authors state that the designed type of the high-elastic sleeve can be applied to all fields of the national economy. There are 8 photographs, 5 diagrams, 2 graphs.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i vsesoyuznyy nauchno-issledovatel'skiy institut pod"yemno-transportnogo mashinostroyeniya (Scientific Research Institute of the Tire Industry and All-Union Scientific Research Institute of the Handling Equipment Industry).

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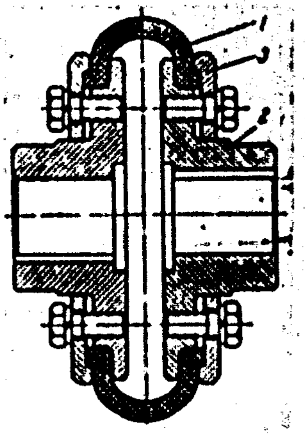
Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

Fig. 1: General view of the sleeve in cross-section



1-resilient rubber element, 2-hard semi-sleeve, 3-clamping bushing

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Fig. 2: General view of the rubber element of the sleeve

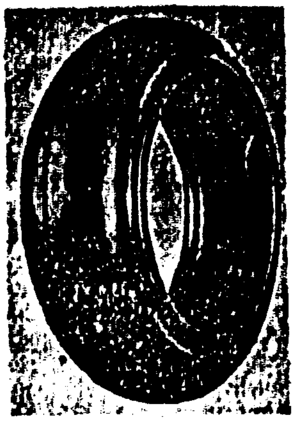

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Fig 3 Center of the press-mold

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Fig 4 Diagram of the reductor stand
1-RM-400 reductor (i=31.5)
2-highly-elastic sleeve
3-geared sleeve
4-pole
5-dynamometer

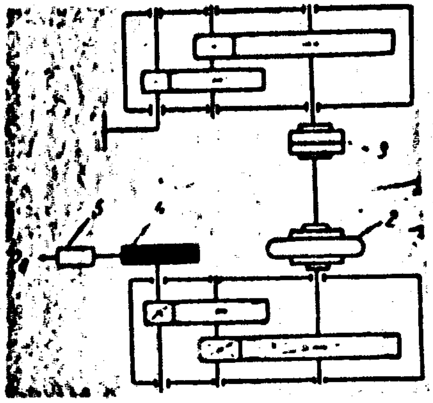

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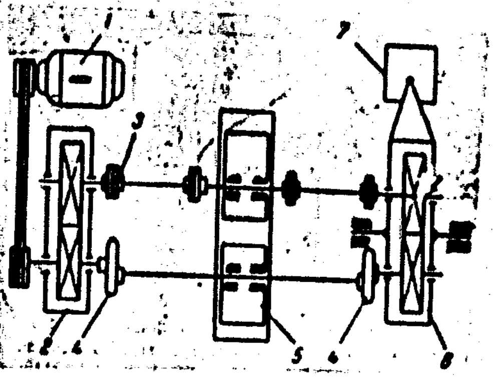
Fig. 5 Diagram of the MC-2 (IS-2) stand:
1-electric motor
2-immobile reductor
3-regulated sleeve
4-high-elastic sleeve
5-carriage
6-swinging reductor
7-load-holding device



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A051/A029

Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

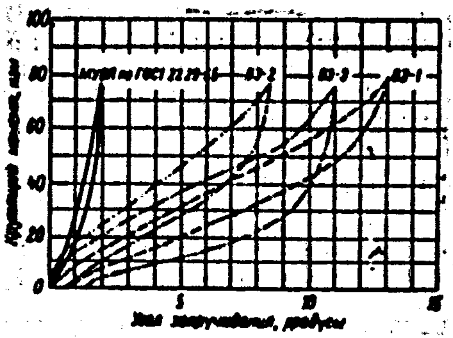

Fig. 6:
Vertical legend: torsion moment, kgm
Horizontal legend:
torsion angle, degrees

Relationship of the torsion angle to the torsion moment of the sleeve

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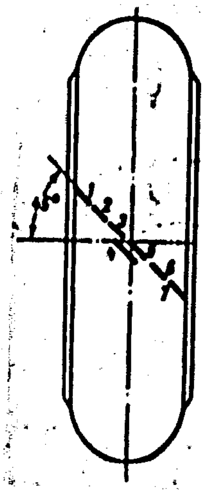
A051/A029

Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

Fig 8:

Distribution of the tension pickups along the generatrix of the rubber element



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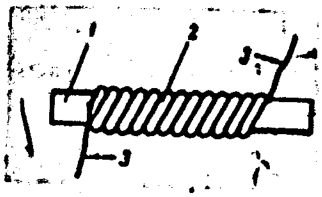
Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

Fig. 9:



General view of the tension pickup:
1-rubber string
2-constantan wire
3-outgoing parts of a many-stwnd. wire

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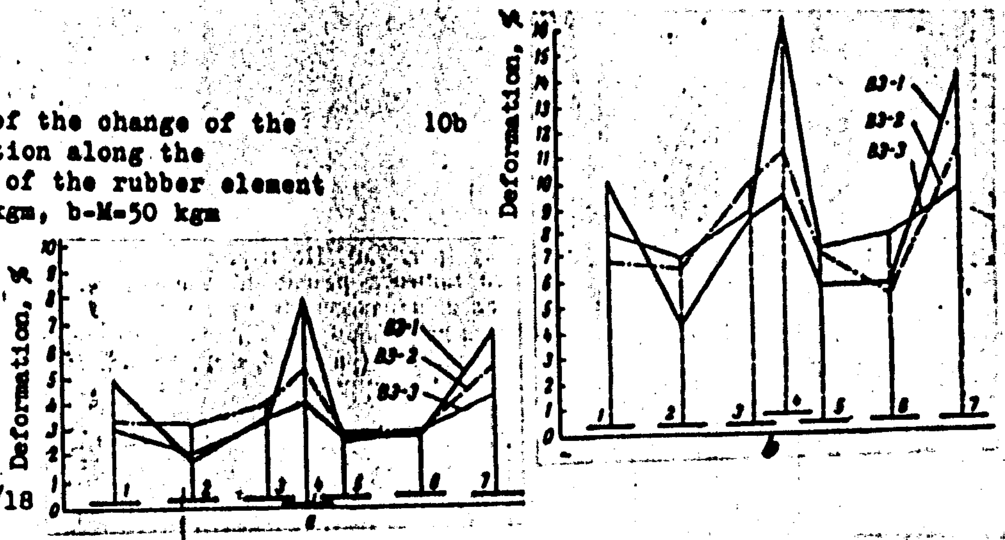
Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

Fig. 10:

Nature of the change of the deformation along the profile of the rubber element a-M-25 kgm, b-M-50 kgm

10b

10a



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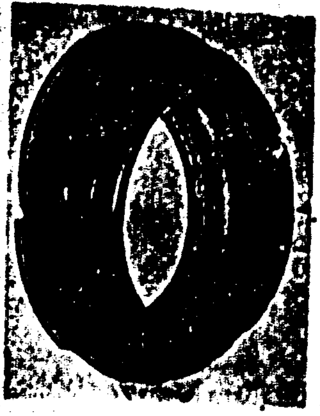
Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

Fig. 11:

Destroyed sample of the rubber sleeve element



Card 18/18

KLAZ, M.Yu.

Hydraulic tire clamp with a rubber-cord balloon. Kauch.i rez.
21 no.1:36-40 Ja '62. (MIRA 15:1)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Tires, Rubber)

KLAZ, N. YE.

Ca

PROCESSES AND PROPERTIES INDEX

9

Use of passivating solutions in the preparation of micrographic sections. N. M. Zarubin and ~~N. M. Klaz~~. *Zavodskaya Lab.* 14, 234-7(1948).—The inevitable corrosion of microsections of ferrous metals, particularly gray cast iron, can be checked by using, in the operations, a soln. of $NaNO_2$ 10-150 g., Na_2CO_3 3 g., H_2O up to 1 l., instead of pure H_2O. Microphotographs are presented as illustrations.

N. Thon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KLAZ, N. Ye. PA 3/49T15

USSR/Chemistry - Laboratories, Industrial Aug 48
Chemistry - Analysis

"Progressive Standards in Analytical Work," N. Ye. Klaz, Supervisor, Chem Lab, "Frezer" (Milling Cutter) Factory, ½ p

"Zavod Lab" Vol XIV, No 8

"Frezer" factory is large tool plant which uses many types of steel. Due to war shortages of reagents, spectrum and colorimetric methods of analysis have been successfully introduced.

[illegible] 3/49T15

KLAZ, N. Ye.; LEVITES, I.I.

Semiautomatic unit for hardening circular dies. Stan.i instr. 32 no.6:33-34 Je '61. (MIRA 14:6)

(Steel—Hardening)

ZARUBIN, N. M.
KLAZ, N. Ye.

METALLOGRAPHY

New method of preparing metallographic cuts from ferrous metals. Vest. mash. 31 no. 12 (1951)

Monthly List of Russian Accessions, Library of Congress, September 1952 UNCLASSIFIED.

KLAZ, S. I.

3

②

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Synthetic Resins and Plastics

The viscoelastic properties of phenol-formaldehyde resins. B. M. [illegible] and S. I. Klaz. Colloid J. (U.S.S.R.) 14, 463-70(1952)(Engl. translation).—See C.A. 47, [illegible]
H. L. H.

KLAZ, S.I.

Setting of phenol-formaldehyde resins. G. L. Slonimskii, B. M. Kovarskaya, and S. I. Klaz (Sci. Research Inst. Plastics, Moscow). *Kolloid. Zhur.* 16, 360-8(1954).—Plastics of the novolak type contg. ≤1% hexamethylenetetramine (I) and plastics contg. any amt. of I but cured below 120° were sol. in EtOH and cyclohexanone (II). Plastics contg. 1-5% I and cured above 130° or contg. >5% I and cured at 120°-130°, swelled in II; the mech. properties of their gels were studied. Plastics contg. >5% I and cured above 130° did not swell or dissolve, and their modulus of elasticity was at a 2nd deformation greater than at the first. J. J. Bikerman

S/191/60/000/005/008/020
B004/B064

AUTHORS: Glukhov, Ye. Ye., Klaz, S. I.

TITLE: Problems of Rheology in Processing Plastics to Finished Products

PERIODICAL: Plasticheskiye massy, 1960, No. 5, pp. 22 - 25

TEXT: On the basis of publications, the authors give a general survey of rheological problems linked with extrusion and casting of plastics. They find that the flow properties of polymers have so far not been clearly defined, and suggest the following ways of solving rheological problems: 1) Determination of flow properties of polymers should make it possible to find the optimum conditions for processing, as well as to calculate extruders and casting machines. 2) The character of the flow of plastics chiefly depends on the ratio of forces of internal and external friction, as well as on the relaxation properties. 3) The properties of plastics exerting an effect upon the flow can be determined by means of a rotary viscosimeter. 4) Apart from the law governing flow, also compressibility, homogenization, and the possibility of a chemical change of the material

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851[illegible]

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B004/B056

11.2320

AUTHORS: Klaz, S. I., Struminskiy, G. V.

TITLE: Effect of Technical Characteristic Values in Extrusion Upon the Efficiency of Screw Extruders and the Quality of Polyvinyl Dichloride 16

PERIODICAL: Plasticheskiye massy, 1960, No. 7, pp. 36 - 42

TEXT: It was the aim of the present paper to determine the optimum values for the extrusion of polyvinyl chloride tubes and their interrelation with the efficiency of screw extruders and the quality of the tubes. The experiments were carried out by means of a laboratory screw extruder (Fig. 1) with equal pitch, variable depth and double thread screw. Screw diameter: 30 mm; rpm: 40. The screw barrel and head were electrically heated. The extrusion of polyvinyl chloride cable mass recipe 301 and 230 was investigated while applying two cores (5.92 and 9.95 mm diameter), and two dies (15.03 and 13.05 mm diameter). At first, only maximum pressure was measured by means of a crusher

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85146

Effect of Technical Characteristic Values in Extrusion Upon the Efficiency of Screw Extruders and the Quality of Polyvinyl Dichloride

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B004/B056

(Fig. 3). Later, pressure was measured by means of a continuous measuring device (Fig. 4), which contained a bellows-type thermostat such as is used for the temperature control in the "Moskvich" motor car. Efficiency was measured on the basis of weight and length of the tube extruded per minute. The authors show their experimental data in the form of diagrams. Fig. 5: weight of the extruded tube as a function of temperature, Fig. 6: length of the extruded tube as a function of temperature. Two maxima of the extrusion were observed. The first depended on wall thickness, the second was constant at 120°C. Fig. 7: Pressure at the end of the screw barrel as a function of temperature. Up to 120°C, pressure dropped with rising temperature and wall thickness; above 120°C, the pressure increased with increasing temperature. The pressure at the head did not exceed 10 kg/cm^2, Fig. 8: Extrusion as a function of pressure. A dependence of extrusion on pressure exists only up to 120°C. Fig. 9: Temperature ranges in which qualitatively good tubes are obtained. The upper limit was about 120°C

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85146

Effect of Technical Characteristic
Values in Extrusion Upon the Efficiency
of Screw Extruders and the Quality of
Polyvinyl Dichloride

S/19 /60/000/007/009/0 5
B004/B056

Fig. 10: Specific weight of the extruded tubes as a function of temperature. Above 120°C large differences in specific weight occurred. Figs. 11 and 12 show the increase of the outer diameter and the wall thickness of the tubes as a function of temperature. A table gives the weight efficiencies as a function of pressure and temperature, as well as of the inner diameter of the die. For each tube diameter there is an optimum temperature, which, however, has a top limit at 120°C. There are 12 figures, 1 table, and 7 references: 5 Soviet 1 US and 1 German.

X

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S/191/61/000/003/007/015
B124/B203

AUTHORS: Klas, S. I., Glukhov, Ye. Ye.

TITLE: Rheological characteristics of high-density polyethylene

PERIODICAL: Plasticheskiye massy, no. 3, 1961, 28-31

TEXT: The authors studied the effect of technological parameters (temperature, pressure) on the rheological characteristics of high-density polyethylene; respective tests were made with flow and with pure shear of the melt through a spinneret. A device was designed for this purpose, the principal part of which - a rotation viscosimeter - was based on the same principle as I. F. Kanavets' plastometer (Ref. 2: Opredeleniye tekhnologicheskikh kharakteristik termoreaktivnykh plastikov (Determination of the technological characteristics of thermosetting plastics), Izd.AN SSSR, Institut tekhno-ekonomich. inform. (Institute of Technical and Economical Information), 1956). This device permits the measurement of internal friction (shear stress) and of the flow through openings at different velocities, temperatures, and pressures. The construction of the device has been thoroughly described

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in Ref. 3 (Ye. Ye. Glukhov, Ustanovka dlya reologicheskikh issledovaniy (Device for rheological studies), Izd.ONTK RSFSR, 1960). The behavior of Soviet-made and imported high-density polyethylene was examined at a shear of 3-1864 sec^{-1} occurring in usual extruders. The tests were made at temperatures from melting point up to maximum working temperature. The authors determined the dependence of the shear stress σ on the rate of shear $\dot{\varepsilon}$ (pressure P) and the time τ of the action on the material; they tested a lot of ПЭ-500 (PE-500) high-density polyethylene. Fig. 1 shows the dependence of shear stress and temperature of the mass on the time of action at constant rate of shear and pressure ($P = 60$ kg/cm^2). The ratio σ_1/σ_2 (σ_1 is the maximum value of σ, and σ_2 is the value to which σ drops; after this dropping it decreases only gradually on heating) reaches at a rate of shear a value near 2 which remains almost constant on a further increase in shear stress. The values of the constant A from equation $\dot{\varepsilon} = A\sigma^n$ (where $n \simeq 1$ at $\dot{\varepsilon} < 100$ sec^{-1}, and $n \approx 2.5$ at $\dot{\varepsilon} > 100$ sec^{-1}) for the flow of non-Newtonian liquids are given in a table. Fig. 4 shows the dependence log σ_1 on $1/T$ at constant rate of shear; on

Rheological characteristics of...

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B124/B203

the basis thereof, the equation $\sigma_1 = B_1 e^{u/RT}$ is set up, where u is the activation energy of the flow, R=2 is the universal gas constant, and B_1 is a coefficient having the dimension of stress. Fig. 5 shows the dependence of the extrusion rate v (m/sec) on pressure (kg/cm^2). For the temperature dependence of pressure at constant extrusion rate, the equation $P = B_2 e^{u/RT}$ was obtained, where B_2 is a coefficient of the dimension of pressure. The authors thank Academician P. A. Rebinder for a discussion. There are 6 figures, 1 table, and 8 references: 6 Soviet-bloc and 2 non-Soviet-bloc. The two references to English language publications read as follows: W. R. Hogg, Plastics, no.2, 69 (1959); R. L. Ballman, Tevis Shusman, H. L. Toor, Mod.Plast. 37, no. 2, 115 (1959).

Legend to Fig.1: Dependence of shear stress and temperature of PE-500 polyethylene on the rate of shear and time at a pressure P = 60 kg/cm^2. Rate of shear $\dot{\varepsilon}$, sec^{-1}: (1) 1695; (2) 1017; (3) 678; (4) 340; (5) 170. (a) Shear stress, kg/cm^2, (b) temperature of the mass, (c) time, sec, (d) time, min.

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Rheological characteristics of...

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B124/B203

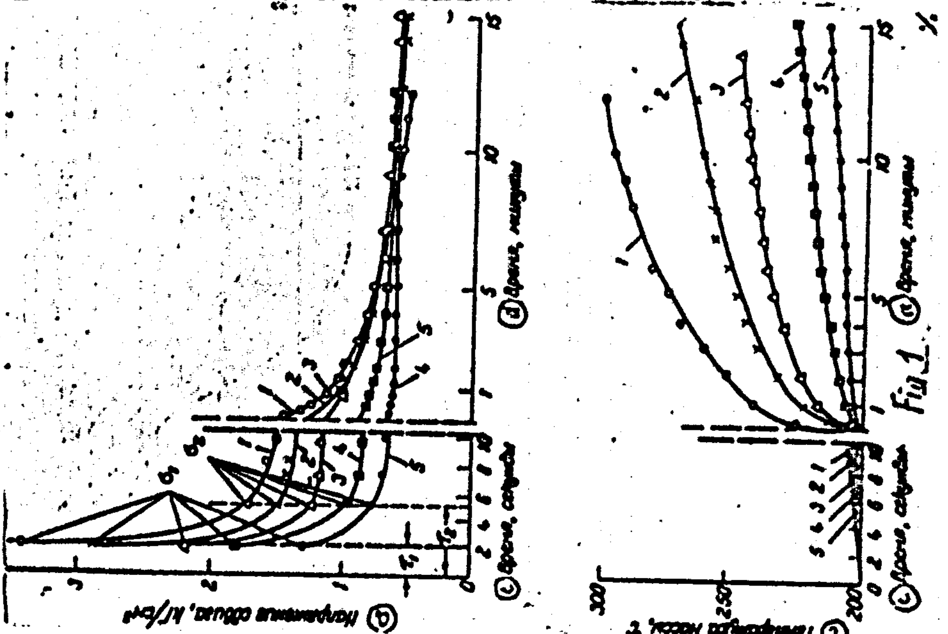

Fig. 1

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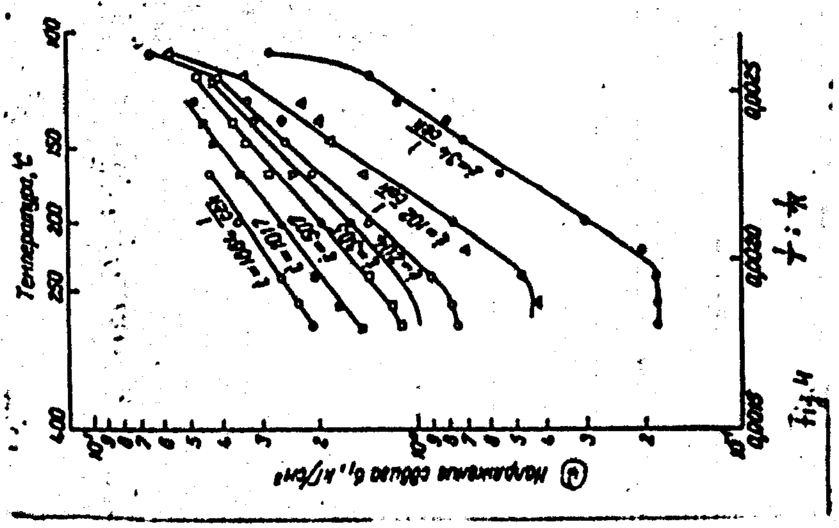
Legend to Fig. 4: Dependence of the shear stress σ on temperature and rate of shear. (a) Shear stress σ_1, kg/cm^2.



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Legend to Fig. 5: Dependence of the extrusion rate on pressure; (a) diameter of the spinneret 0.5 mm; length 1 mm, (б) diameter of the spinneret 1 mm; length 6 mm. (a) Extrusion rate, m/sec, (b) pressure, kg/cm^2.

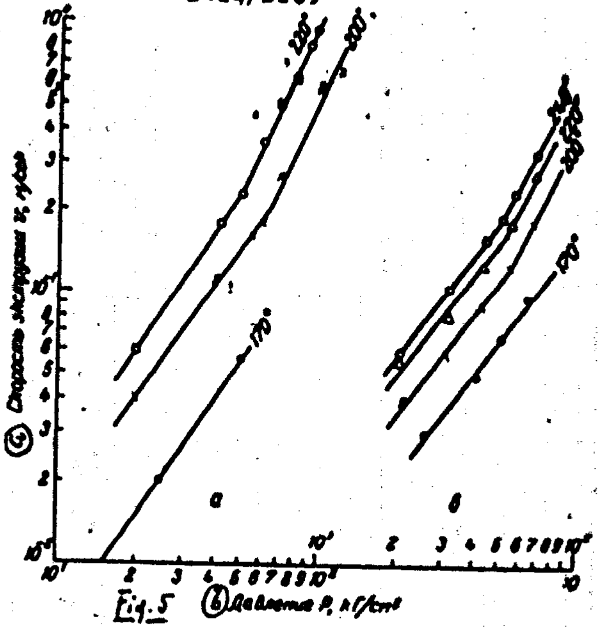

Fig. 5

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S/191/61/000/003/007/015
B124/B203

Legend to the table: Values of coefficient A. (1) Temperature, (2) at $\dot{\varepsilon} < 100$ sec^{-1}, (3) at $\dot{\varepsilon} > 100$ sec^{-1}.

Значения коэффициента *A*

① Температура °С	② При $\varepsilon < 100$ 1/сек	③ При $\varepsilon > 100$ 1/сек
110	4,8	—
120	10	1,8
130	27	11
140	45	15
150	50	11
170	62	27
200	100	120
240	150	200

Card 7/7

GLUKHOV, Ye.Ye.; KLAZ, S.I.

Rheological characteristics of low pressure polyethylene and the evaluation of its fluidity. Plast.massy no.5:30-33 '62.
(MIRA 15:4)
(Polyethylene) (Rheology)

S/191/62/000/011/007/019
B101/B186

AUTHORS: Klas, S. I., Glukhov, Ye. Ye.

TITLE: Flow of cable plastics based on polyvinyl chloride

PERIODICAL: Plasticheskiye massy, no. 11, 1962, 26-30

TEXT: The rheological properties of plasticized PVC cable plastics containing 45 parts by weight of plasticizer per 100 parts of PVC were studied to obtain data for calculating parameters of extruders. The tests were made under conditions of uniform thrust, at thrust velocities $\dot{\varepsilon}$ of 10 - 2000 sec^{-1}. At $\dot{\varepsilon} = 1695\ \text{cm}^{-1}$, $p = 60\ \text{kg/cm}^2$, a shear stress σ_1 ($\sim 4\ \text{kg/cm}^2$) was observed within the first two seconds dropping to σ_2 ($\sim 1\ \text{kg/cm}^2$) by the fifth second. σ_1 is a measure for the structural strength, σ_2 is the stress required to maintain the flow after destruction of the structure. As σ_1 with high $\dot{\varepsilon}$ may reach threetimes the value of σ_2 it is dangerous to start a full extruder operating. An empirical equation was found: $\sigma_p = \sigma + B(p - 60)$, where σ_p is σ_1 or σ_2 at a given pressure p; σ is σ_1 or σ_2 at $p = 60\ \text{kg/cm}^2$; $B = 0.0068$ for calculating σ_1,

Card 1/2

L 17473-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS ASD Ps-4/Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3004773 S/0191/63/000/008/0027/0033

AUTHORS: Kanavets, I. F.; Klas, S. I.

68

TITLE: Method of determining rheological properties of polymer materials

SOURCE: Plasticheskiye massy", no. 8, 1963, 27-33

TOPIC TAGS: viscosimeter, viscosity, plastic flow resistance, plastic flow rate, plastics, Poiseuille law

ABSTRACT: A method was worked out for measuring the input resistance of the gates and dies to various polymers by the employment of a viscosimeter. The flow resistance with respect to channel length was also measured. The coefficient of effective viscosity can be calculated in accordance with Poiseuille's law. A formula is proposed for calculating the flow rate gradient across the disks. The method can be used to determine dependence of viscosity and flow rate from 0.03 sec^{-1} to 14,000 sec^{-1}. It can also be used to measure the material density and reduction in stress. Orig. art. has: 11 figures, 1 table and 7 formulas.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 28Aug63 ENCL: 00

SUB CODE: MA NO REF SOV: 010 OTHER: 002

Card 1/1

GLUKHOV, Ye.Ye.; VINOGRADOV, G.V.; KLAZ, S.I.

Rheology of polymers. Rheological properties of polymer melts under high deformation rates. Vysokom. soed. 5 no.10: 1543-1548 O '63. (MIRA 17:1)

1. Nauchno-issledovatel'skiy institut plasticheskikh mass.

KANAVETS, I.F.; KLAZ, S.I.

Significance of the rheological characteristics and extrusion conditions of thermoplastics for the design of the forming channels. Plast.massy no.10:23-29 '64. (MIRA 17:10)

Klazar, G.

Domestic coatings and enamels for lager beer steel tanks. p. 78.
KVASNY PRUMYSL. (Ministerstvo potravinarskeho prumyslu) Praha.
Vol. 1, no. 4, Apr. 1955.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

KLAZAR, O. ; KAHLER, M.

KLAZAR, O. ; KAHLER, M. The pasteurization of beer. p. 150
Stockholm Agreement on barley and malt analysis (to be cond.) p. 153.

Vol. 2, No. 7, July 1956.
KVASNY PRUMYSL
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession Vol. 6, No. 2, 1957

KLAZAR, O.

Metal barrels and transport tanks in the brewing industry. p. 145.

(Kvansy Prumysl. Vol. 3, no. 7, July 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

COUNTRY: : Czechoslovakia H-27
CATEGORY :

ABS. JOUR. : RZKhim., No. 5 1960, No. 19768

AUTHOR : Klazar, G.
INST. : Not given
TITLE : The Use of Diatomite Filters in the Beer Brewing Industry

ORIG. PUB. : Kvasny Prumysl, 4, No 4, 76-79 (1958)

ABSTRACT : The filtration of the wort and beer through diatomite [precoat] filters (DF) has been studied. Czech diatomite (D) is compared with known D from abroad. It has been established that Czech D meets the requirements of the beer-making industry. Comparison filtration runs were made with the same beer through filter aid and imported D [sic] in a Shenka filter. Chemical analysis of the beer clarified by the two filtration methods have shown that D has a stronger adsorption for color-carrying

CARD: 1/2

CARD: 1/2

COUNTRY :
CATEGORY : H

ABS. JOUR. : RZKhim., No. 23 1959, No. 83795

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT :of beer. When employing the above method of bottling the productivity is increased by 25 - 40%; organoleptical properties are not changed (neither due to hot bottling nor due to rapid or slow subsequent cooling). Extraneous odors, taste and easily precipitated sediment, characteristic to any pasteurized beer, are absent. The foam stability of beer is improved, while color is somewhat darker than normal. As applied to beers with appropriate coll. stability, this method insures technological advantages and is economically effective.-- R.Zalmanzon.

CARD: 2/2

H - 105

KLAZAR, Gaston

Experimentation, an element of research work. Kvasny prum 9 no.5:119-122 My '63.

1. Vyzkumny ustav pivovarksy a sladarsky, Praha.

KLAZAR, G., inz.

"Hop growing" by Lubomir Vent and others. Reviewed by Klazar. Kvasny prum 10 no. 2: 45 F '64.

KLAZAR, Gaston

Production control and its economic importance. Kvasny prum 10 no.7:161-164 Jl '64

1. Research Institute of the Brewing and Malting Industry, Experiment Center Prague - Branik.

KLAZAR, Gaston, inz.

Technical progress in the brewing and malting industry of the Czechoslovak Socialist Republic. Przem ferment i rol 8 no.2:38-40 F '65.

1. Industrial Brewing and Malting Research Institute, Prague.

KLAZAR, J.; KOSEK, F.; CIMPL, J.; STANEK, M.

Color temperature method for determining the heating of parts. Automatizace 7 no. 3:81 Mr '64.

L 20219-66 EWP(j)/T RM
ACC NR: AP6010345 SOURCE CODE: CZ/0032/65/015/007/0543/0544

AUTHOR: Cimpl, Z.; Kosek, F.; Stanek, M.; Klazar, J.

29
B

ORG: Institute of Chemical Engineering, Pardubice (Vysoka skola chemickotechnologicka)

TITLE: Thermocolors

SOURCE: Strojirenstvi, v. 15, no. 7, 1965, 543-544

TOPIC TAGS: pigment, paint, color, temperature dependence

ABSTRACT: The article outlines the areas of application of the so-called thermocolors -- paints and pigments which chnge their color, mainly irreversibly, at a certain temperature. A table of thermocolors is given for measuring temperatures from 35 to 500°C. This paper was presented by J. Lombardini, Engineer. Orig. art. has: 1 figure and 3 tables. [JPRS]

SUB CODE: 11, 20 / SUBM DATE: none

Card 1/1 mjs

UDC: 536.55

2

KOSEK, Frantisek; CIMPL, Zdenek; STANEK, Milan; KLAZAR, Jan

Coloristor, a new operation indicator. Sdel tech 12 no.5: 176-177 My '64.

KLAZAR, Jan; PANUSOVA, Sona

Preparation of α-bromonaphthalene. Chem prum 13 no.11: 585 N'63.

1. Vysoka skola chemickotechnologicka, Pardubice.

MAZAK, Jaroslav; VANASEK, Jaroslav; MATEJA, Frantisek. Technicke spoluprace: MICHALCOVA, V.; PROUZOVA, H.; KLAZAROVA, M.

Blood coagulation findings in experimentally burned dogs.
Sborn. ved. prac. lek. fak. Karlov. Univ. 7 no.5:777-789
'64.

1. II. interni klinika a katedra valecneho vnitrniho lekarstvi (prednosta: prof. MUDr. V. Jurkovic, DrSc.).

ERBEN, J.; BELOBRADKOVA, J.; STEFAN, H.; GROH, J.; BARTOS, V.;
KRCH, V.; KVASNICKA, J.; NAVRATIL, P.
KLAZAROVA, M., technicka spoluprace; SCHROFLOVA, A., technicka
spoluprace.

Hemodialysis in the treatment of acute uremia (III)
Cesk pediat 18 no. 3:193-199 '63.

1. Interni, detska, chirurgicka a urologicka klinika
lekarske fakulty KU v Hradci Kralove; prednostove:
doc. dr. F. Cernik, prof. dr. J. Blecha, prof.
dr. J. Prochazka, doc. dr. J. Svab
(UREMIA) (DIALYSIS) (HYPERKALEMIA) (KIDNEY, ARTIFICIAL)

KLAZS, B.; FOMINA, O.

Studying the expenditure of labor in the textile industry.
Sots. trud 7 no.9:110-113 S '62. (MIRA 15:9)

1. Proyektno-konstruktorskoye byuro Upravleniya legkoy promyshlennosti Soveta narodnogo khozyaystva Latviyskoy SSR.
(Latvia--Textile industry)

KLAZS, B.N.

We are increasing labor productivity. Tekst.prom. 16 no.12:44-45
D'56. (MIRA 10:1)

1. Nachal'nik planovogo otdela kombinata "Zasulauka manufaktura."
(Riga--Cotton spinning)

KLAZS, B.N., inzh.; MASLENNIKOV, V.P., inzh.

Universal electronic block for automatic stopping of knitting machines. Mekh.i avtom.proizv. 15 no.11:49 N '61. (MIRA 14:11)
(Knitting machines) (Electronic control)

KLAZYNSKI, Teodor, mgr inz.

Legal provisions of underground canal networks and installations. Przegl geod 35 no.2:66-69 F '63.

CZECHOSLOVAKIA

KLO, J.

Institute for Cell Metabolism, Microbiological Institute, Czechoslovak Academy of Science (Laboratorium für Zellenmetabolismus, Mikrobiologisches Institut, Tschechoslowakische Akademie der Wissenschaften), Prague

Prague, Collection of Czechoslovak Chemical Communications, No 3, March 1966, pp 1395-1398

"Microextraction method for detection of phosphates in biological material."

USSR/Cultivated Plants - Grains. M-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29731

Author : Kldiashvili

Inst : Georgian Agricultural Institute.

Title : Corn and Beet Reaction to Side-Dressing with the Micronutrients Boron and Manganese.

Orig Pub : Nauchn. tr. Stud. Gruz. s.-kh. in-t, 1957, 6-7, 64-70 (Gruz)

Abstract : No abstract.

Card 1/1

L 27614-65 EWT(1) GW
ACCESSION NR: AT5001379 S/2778/64/000/012/0018/0028

20
9
β+1

AUTHOR: Shenderovich, I. M.; Kleban, L. S.

TITLE: The small GM-28 coastal tide gage

17

SOURCE: Leningrad. Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya. Trudy, no. 12, 1964. Voprosy gidrometeorologicheskogo priborostroyeniya (Problems in hydrometeorological instrument manufacture), 18-28

TOPIC TAGS: oceanography, 17 tide, oceanographic instrument, tide gage, GM-28 tide gage

10 28

ABSTRACT: This article gives a brief description of the design of a small coastal tide gage, the GM-28, the principle of its operation and specifications and some results of its testing. The apparatus can be used either under stationary conditions or on expeditions. It is set up easily along any part of the coast. In this tide gage, fluctuations of hydrostatic pressure caused by tidal changes of sea level are transformed into the mechanical movement of an indicating hand by means of a sylphon; these movements are recorded on a paper tape on a drum moved by a clock mechanism. The gage (shown schematically in Fig. 1 of the Enclosure) is a sealed automatic recorder of hydrostatic pressure. Instrument readings are

Card 1/~~4~~3

L 27614-65

ACCESSION NR: AT5001379

5

unaffected by changes in the surrounding temperature because there is a temperature compensator. The instrument sits on a cast base 1. The sylphon 2 is attached to the outer side of the base. The linear movement of the bottom 3 of the sylphon, caused by a change of sea level, is transformed into rotational movement of the axle 4 by a rod 5 attached to the bottom of the sylphon on the inner side and a plate 6 attached to the axle. The axle carries a bimetallic curved piece to which is attached an indicator 8 with a pen for recording on the paper on the drum 9 with a daily or weekly clock mechanism. The rod is supported by a bushing 10. The mechanism ensuring recording of sea level, minus the initial depth of the instrument, consists of a special nut 11, a locking/checking device and support 12, and other components. The apparatus is kept air- and watertight by a protective housing 13, bolts 14 and nuts 15. Influence of wind waves is excluded by damping. The apparatus weighs 10 kg and measures 350 x 220 x 200 mm. The time required for initial setting up of the gage does not exceed 30-40 minutes. Tests in the White and Baltic Seas have demonstrated the good operating qualities of the gage. The GM-28 is now in production. "The authors wish to thank A. S. Pchelkin, V. M. Nikitina and M. A. Molochnik, specialists at the Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya (Scientific research institute of hydrometeorological instrument making) and A. A. Farikh and L. A. Yel'tsova, specialists at the Rizhskiy zavod gidrometeorologicheskogo priborostroyeniya

Card 2/4

L 27614-65

ACCESSION NR: AT5001379

g

(Riga hydrometeorological instrument making plant), who took an active part in designing the GM-28 tide gage and in its laboratory, factory and acceptance tests". Orig. art. has: 3 figures and 5 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya, Leningrad (Hydrometeorological instrument making scientific research institute)

SUBMITTED: 00

ENCL: 01

SUB CODE: ES

NO REF SOV: 000

OTHER: 000

Card 3/4

KLEANDR, A.

THE TECHNOLOGY OF ELECTRODES USED FOR ARC WELDING. A. Kleandr. (Svarovani, 1948, vol. 8, June, pp. 66-73, July, pp. 93-99: Aug., pp. 109-112). (In Czech). The influence of the various elements of the electrode coatings, particularly that of oxygen, nitrogen, and hydrogen, is described. The properties of the individual types of coating are outlined and their qualities are compared from the point of view of welding speed and quality of the weld produced. The most important considerations involved in the manufacture of electrodes are explained so as to assist the user to select electrodes suitable for a particular task. Classification tables of electrodes according to American and Czechoslovak Standard Specifications, are included.

Immediate source clipping

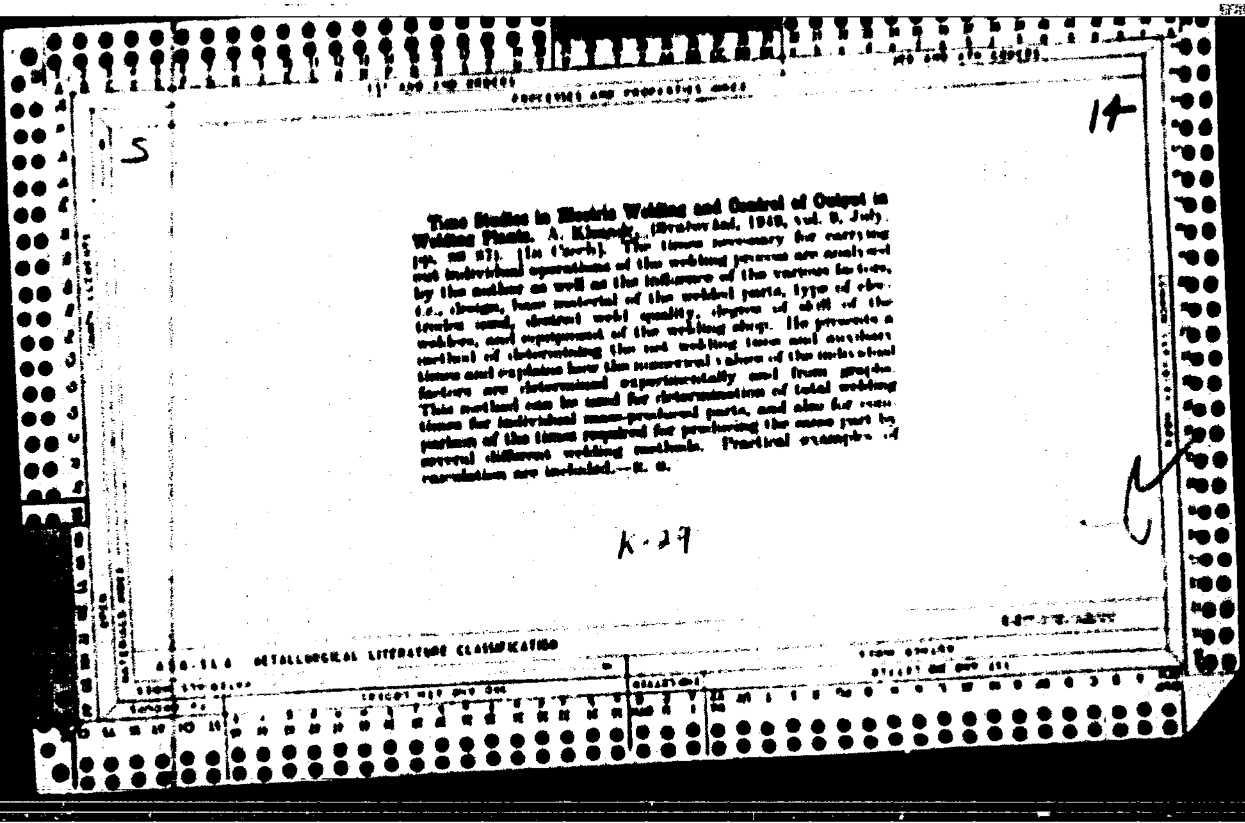
5

14

HEPAIR BY ARC WELDING OF A VALVE BOUY OF A THREE PLUNJER HYDRAULIC PUMP. A Kleandr, Svarovani 1949, vol. 9, June pp 69-70. In Czech A crack in acast steel valve body weigning 1 ton was reparied by arc welding. The composition of the steel was : 0.47% C, 0.67% Mn, 0.15% Si, 0.045 P, and 0.024% S. A single U groove joint was made. The part was preheated to 200° C., and kept for 10 hr. at 150° C after the weldingprocess was completed. The valve boy was then allowed to cool down and after inspecting the weld its temperatu re was increased slowly during 12 hr. to 600° C. and kept at the for 12 hr. The furnace was then switched off and the part removed when its temperature dropped to100° C. The annealing took four days. The cost of the repairwas about 60% of the cost of a new casting.

K-29

METALLURGICAL LITERATURE CLASSIFICATION



5

14

Time Studies in Electric Welding and Control of Output in Welding Plants. A. Klimeš. (Strojírenství, 1953, vol. 3, July, pp. [illegible]). (In Czech). The times necessary for carrying out individual operations of the welding process are analyzed by the author as well as the influence of the various factors, i.e., design, base material of the welded parts, type of electrodes used, desired weld quality, degree of skill of the welders, and equipment of the welding shop. He presents a method of determining the net welding time and auxiliary times and explains how the numerical values of the individual factors are determined experimentally and from graphs. This method can be used for determination of total welding times for individual mass-produced parts, and also for comparison of the times required for producing the same part by several different welding methods. Practical examples of calculation are included.—R. G.

K·27

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KLEANDER, A.

" Repair of Machine Parts and Tools With EH-450 Electrodes by the Use of Wear-resistant Coatings." p. 3 (SVARACSKY SBORNIK. Vol. 2, No. 1/2, 1953; Bratislava, Czech.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, April 1955, Uncl..

FLEANDER, A.

FLEANDER, A. Welding with large-diameter electrodes. p. 77.

Vol. 3, No. 1/2, 1954
SVARACSKY SBORNIK
TECHNOLOGY
Bratislava, Czechoslovakia

So: East European Accessions, Vol. 5, No. 5, May 1956

KLEANDER, A.

Labor hygiene in electric are welding, Tr. from the Swedish, p. 113, ZVARANIE, (Ministerstvo hutneho prumyslu a rudnych bani a Ministerstvo strojarstvo) Bratislava, Vol. 3, No. 4, May 1954

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December, 1956 [illegible], A.

Production plan for filler rods and electrodes. p. 169. ZVARANIE. (Ministerstvo hutneho prumyslu a rudnych bani a Ministerstvo strojarstva) Bratislava. Vol. 3, nol 6, June 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956 [illegible], [illegible].

Status and development of the production of coated electrodes to insure quality and productivity of electric-arc welding. p. 375. ZVARACSKY SBORNIK. (Slovenska akademie vied) Bratislava. Vol. 4, no. 3, 1955.

SOURCE: East European Accessions List, Vol. 4, no. 9, September 1956

KLEANDER, ANTONIN

2

18882* Program for the Production of Filler Materials for Electric Arc and Flame Welding. Výrobní program přídavných materiálů pro svařování elektrickým obloukem a plamenem. (Czech.) Antonín Kleander. Zváranie, v. 4, no. 6, June 1955, p. 169-1[illegible] MG

Czechoslovak standards for welding rods, wires, and electrodes, including welding properties, techniques, fluxes, strength standards of resulting welds, structures, and metals and where a particular welding electrode is to be used. Tables.

Kleander, Antonin

5571*. Repairing Cracked Valve and Pump Casings by Welding. Opravy prasklých ventilových a čerpadlových těles [illegible]. (Czech.) Antonín Kleander. Zváranie, v. 4, nos. 9-10, Sept. 1955, p. [illegible].
Repair methods for sizable cracks in low-alloy or unalloyed steel forgings or castings of large size and subject to high pressures. Weldability, composition, and mechanical properties of steels and recommended repair techniques. Tables, diagrams, photographs.

MG

3

18 18

On the Production of Welding Electrodes and Iron Powder. A. Klesnder. (*Zváranie*, 1957 6, (3), 48-56). [In Czech]. The technology of electrode production for shielded arc welding is discussed with special reference to possible improvements in the quality of iron powders used for electrode coatings. Economic aspects of iron powder production are considered.—P. F.

KLEANDER, A.

"Development of the production of filler materials for electric-arc welding in Vamberk during the last 20 years." p. 65.

ZVARANIE. (Ministerstvo hutneho prumyslu a rudnych bani a Ministerstvo strojarenstva). Bratislava, Czechoslovakia, Vol. 8, No. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

KLEANDER, Antonin, inz.

Some shortcomings in welding. Zvar sbor 9 no.4:403-408 '60

1. Zelezarny Antonina Zapotockeho, Vamberk.

KLEANDER, A., inz.

Lectures on new techniques in the national enterprise
"Vychodoceske chemicke zavody - Synthesia" in Pardubice.
Zvaranie 11 no.8:246-247 Ag '62.

VORSA, Otakar, inz.; KLEANDER, Antonin, inz.

New kinds of metal powders. Stroj vyr 11 no.6:286-288 Je '63.

1. Vyskumny ustav pre praskovu matalurgiu, Mokrad (for Vorsa).

KLEANDER, A., inz; DANIHELKA, F.; PECH, L.

From the activities of the Regional Commission of the Czechoslovak Scientific and Technological Society in Hradec Kralove. Zvaranie 12 no.11:338-339 N'63.

1. Zavodni pobocka Ceskoslovenske vedecko-technicke spolecnosti, Synthesia, Semtin (for Danihelka).
2. Svareci technolog, Zavody potravinarskych a chladicich stroju, Pardubice (for Pech).

KOMLEV, G.A.; KLEANDROV, T.N.; CHAKHOTIN, V.S.; UDALOV, L.K.; MAKAROV, V.F.

Reducing losses of metal in the processing of mercury ores in rotary tube furnaces. Izv.AN Uz.SSR.Ser.tekh.nauk 8 no.4:66-69 '64.
(MIRA 18:4)

1. Sredneaziatskiy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta tsvetnykh metallov.

KLEANOVA, A. A.

USSR/Medicine - Tuberculosis, May/Jun 48
Pulmonary, Epidemiology and [illegible]
Medicine - Tubercle Bacilli

"The Significance of Absence of Tubercle Bacilli in the Flotation Studies of Gastric Contents Obtained by Lavage," M. V. Trius, A. A. Kleanova, L. Ye. [illegible]ryabina, Dept of Experimental Path, Moscow Oblast Sci Res Tuberculosis Inst, 5 pp

FA 7/49T70

"Problemy Tuberkuleza" No 3

Authors have examined 3,661 cases by subject method, most of them suffering from pulmonary tuberculosis. In some cases repeated bacterioscopic investigations failed to reveal tubercle bacilli; new method

USSR 7/49T70

USSR/Medicine - Tuberculosis (Contd) May/Jun 48

produced positive results in 32% of cases. Epidemiological significance of the discovery of tubercle bacilli in gastric contents by flotation method is considerably less than their discovery by usual method in sputum.

USSR 7/49T70

KLEAPOVSKAYA, V.I., operatsionnaya sestra; KOROTAYEVA, O.D., operatsionnaya
sestra; TSURYUPA, L.F., operatsionnaya sestra

Work of the surgical nurse in sounding the heart and pulmonary
vessels. Med. sestra 22.no.1:56-57 Ja '63. (MIRA 16:7)

1. Iz legochnogo khirurgicheskogo otdeleniya Instituta eksperimental'noy biologii i meditsiny Sibirskogo otdeleniya AN SSSR.
(CARDIAC CATHETERIZATION) (ANGIOGRAPHY)

CZERNICKI, Jozef; KLEBA, Jozef

Selected problems of the Miocene in the foreland of the Central Carpathians. Wiad naft 8 no.1:6-9 '62.

CZERNICKI, Jozef; KLEBA, Jozef

Natural potentials in bore holes. Wiad naft 8 no.3:49-51 Mr '62.

SHNEYDEROVICH, I.M.; KLEBAN, L.S.

Automatic bathometer-thermobathygraph. Trudy NIIGMP no.7: 116-121 '59. (MIRA 13:5)
(Bathythermograph) (Bathometer)

SHEVCHENKO, F.N.; VARZHENEVSKIY, N.S.; KLEBAN, L.S.

Photoelectric cloud meter with pulse-type source of light.
Trudy NIIGMP no.8:23-29 '59. (MIRA 13:4)
(Clouds) (Meteorological instruments)

SHENDEROVICH, I.M.; KLEBAN, L.S.; PLAKHOTNIK, A.F.

Results of testing an improved bathythermograph. Trudy
NIIGMP no.9:97-101 '60. (MIRA 14:7)
(Bathythermograph--Testing)

L 9819-66 EWT(1)

ACC NR: AT5022095

UR/2778/65/000/014/0010/0015

AUTHOR: Kleban, L.S.; 55 Shenderovich, I.M. 55

29

B+1

TITLE: Large volume water sampler

SOURCE: Leningrad. Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya. Trudy, no.14, 1965, 10-15

TOPIC TAGS: oceanographic instrument, 10,55 sea water, hydrology

ABSTRACT: The authors describe the design and operational characteristics of a large 55 sea water sampler, GM-42. The development was done by the instrument division of the NIIGMP, with the aim of producing a fairly large (54 liters) water sampler causing no sample contamination and having good operational suitability. The sampler is essentially a horizontal stainless steel cylinder with an external closure system. A general view is shown in Fig.1, Enclosure 01. The sampler passed acceptance tests in the Caspian Sea. The orig. art. has: 2 figures.

ASSOCIATION: 12,55 NIIGMP

SUBMITTED: 00 ENCL.: 01 SUB CODE: 08

NO REF SOV.: 001 OTHER: 002

(18)

Card 1/2

L 9819-66

ACC NR: AT5022095

ENCLOSURE: 01

O

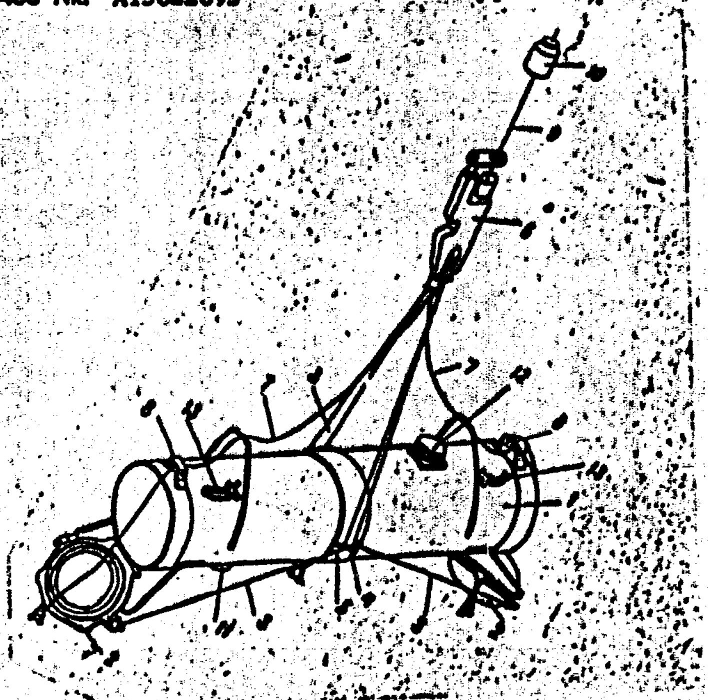


Fig. 1. General view of the water sampler.

HW

Card 2/2

ACC NR: AT5022099 UR/2778/65/000/014/0109/0112

24
B+1

AUTHOR: Kleban, L.S.; Shenderovich, I.M.
44,55 44,55

TITLE: Low inertia thermal sensor for manometric thermometers

SOURCE: Leningrad. Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya. Trudy, no. 14, 1965, 109-112
44,55

TOPIC TAGS: Thermometer, temperature pressure transducer, manometric thermometer
15,44,55

ABSTRACT: The authors discuss and evaluate a new design for a temperature-pressure transducer suitable for oceanographic applications and previously described by them in detail (Avtorskoye svidetel'stvo No 159309, Bull. Izobreteniy, no. 24, 1963). In this concept, the sensor liquid (e.g. toluol) occupies the volume between two coaxial metal tubes, instead of the conventional capillary tubing. The instrument has a much lower time constant than the conventional design. The orig. art. has 1 figure, 1 tabl and 6 formulas.

ASSOCIATION: NIIGMP

SUBMITTED: 00 ENCL.: 00 SUB CODE: 08,09

NO REF SOV: 004 OTHER: 00

(18)

HW
Card 1/1

2

S/778/61/000/010/001/001
1044/1244

AUTHORS: Shenderovich, I.M. and Kleban, L.S.

TITLE: Tsunami wave registration

SOURCE: Leningrad. Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya. Trudy no.10. Moscow, 1961, 110-120

TEXT: The measurement of tsunami waves is hampered by the fact that they usually occur together with wind-swept and tidal waves, and these have to be screened out. As yet, no instrument exists for registering tsunamis of catastrophic force. The present paper details a solution for this difficulty with an apparatus which consists of two registrators. The first one, operated by means of a float, registers small tsunamis, while the second is hydrostatic and is activated automatically whenever a large tsunami wave approaches. Both instruments have been tested, both in the laboratory and at sea and proved to be satisfactory in all respects - they remained waterproof, successfully screened out non-tsunami waves, and did not develop defects. The hydrostatic registrator was devised so that it recorded surface movements of up to 1008 cm magnitude on a 100 mm recording band. A comparison between the two instruments is presented. The instruments were recommended for use in the Far East

Card 1/2

S/778/61/000/010/001/001
I044/I244

Tsunami wave registration ✓

of the Soviet Union. There are 5 figures and 2 tables.

Card 2/2

SHENDEROVICH, I.M.; KLEBAN, L.S.

The GM-7-III automatic bathometer and bathythermograph. Trudy NIIGMP no.11:102-105 '63. (MIRA 18:1)

ACCESSION NR: AT4038815 S/2778/63/000/011/0106/0113

AUTHOR: Shenderovich, I. M.; Kleban, L. S.; Timofeyev, V. N.

TITLE: The GM-30 tsunami (tidal wave) warning device

SOURCE: Leningrad. Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya. Trudy*, no. 11, 1963, 106-113

TOPIC TAGS: meteorology, tidal wave, seismic tidal wave, earthquake, tsunami, tsunami detection

ABSTRACT: In previously published papers, a method has been developed for the detection of tsunami waves arising against a background of tidal variations in the level of the sea. This method is based on the fact that the rate of change in level due to tides (ebb and flow) and to tsunami waves is different. In order to determine these rates by means of the currently used sea-level recorder (or floating tsunami recorder), the floating system of the latter converts sea level variations into displacements of a special mechanical carrier arrangement, the speed of which is measured according to the value of the braking force of a piston traveling in a cylinder with a viscous liquid. This method of speed measurement was chosen because these speeds are very small in terms of absolute magnitude and are approximately equal to 0.5 mm/min for tidal variations and 3-5 mm/min for

ACCESSION NR: AT4038815

tsunami waves. Maximum and minimum rates and periods of tidal- and tsunami-caused sea level changes are discussed in the article and tables are given illustrating the maximum (and minimum) numerical values of tidal speeds at installation sites of sea level recorders and the ratio of level variation rates as caused by ebb and flow and tsunami waves for various ranges of level measurement. A method is also described for furnishing warning signals regarding the approach of tsunami waves to the installation site of tsunami or tidal wave recorders and sea level indicators. The operation of this device is based on measurement of the speed of movement of a carrier which is rigidly connected with the movement of the floating wheel of the sea-level recorder (or floating tsunami recorder) which records the sea level variations. When the level variations are of tidal origin, the carrier movements are slow, whereas with the advent of tsunami waves the movement of this carrier arrangement is accelerated, this fact being determined by means of a special device pictured and described in the text of the article, along with an explanation of its electrical circuitry. In order to achieve uniform speeds in the movement of the tsunami indicator, the floating wheel of the sea level indicator was uniformly rotated by means of an SD-2 synchronous motor (2 rpm), with rubber washers of different diameters placed on the shaft of the motor in order to ensure the necessary speeds of carrier displacement (15-mm washer to simulate "slow tsunami waves" at 2.4 cm/min; 5-mm washer to simulate "rapid tides" at 0.8